(H)armony 880

Logitech

Reviewer's Guide

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1. A Note to Reviewers

This guide provides information to help you craft your independent review of the Logitech Harmony Remote 880 The communications team at Logitech hopes you'll find our efforts helpful, we would appreciate your feedback

Contact References:
Refer your readers to:
www.logitech.com/harmony

Customer Support:
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Product Images:
You can download high-resolution product images from the Press Kit CD. Images are also available online by visiting http://www.logitech.com/pressroom

2. Industry Overview

2.1 The Problem: Complexity in the Modern Living Room

Undeniably, new technologies such as high-definition television and digital video recorders (DVRs), also referred to as personal video recorders (PVRs), enhance how people experience home entertainment – but they also introduce new complexities to the living room. Today's typical entertainment system may feature anywhere from six to ten different electronics components, each with its own remote control (TV, VCR, DVD player, home-theater receiver, satellite or cable television decoder, DVR, CD jukebox, game console, etc.). Some systems require people to press as many as a dozen buttons, in the correct sequence, on a combination of remote controls, just to watch a movie with surround sound. While entertainment systems have become a source of pride – even a source of competition among friends – actually using them can be laborious, if not frustrating. The experience can be especially frustrating for family members and friends; anyone who didn't set up the entertainment system may require detailed instructions to use it.

In addition to the complexity brought on by an excessive number of remote controls, people face the challenge of clutter, with their coffee tables lined with a half-dozen or more remotes.

2.2 The Opportunity

The opportunity to create a single remote to control an entire home entertainment system became clear several years ago as the modern living room entertainment system started to become more complicated.

However, early attempts at a universal remote were plagued with compatibility problems and limited functionality. There simply was no straightforward single remote that could control a growing list of individual components. Even in the current generation of universal remotes, many of which are fairly reliable with robust capabilities, there are three fundamental shortcomings:

- *Difficult to set up:* Remotes require complicated programming, so consumers must have steep technical knowledge or hire an installer.
- *Difficult to use:* These remotes require pressing an elaborate sequence of buttons to simply watch television or a DVD, or listen to music.
- *Incomplete control:* Many remotes only work on a limited number of popular devices. On some remotes, information that the remote uses to control components is stored internally, at the time it was manufactured, and quickly becomes outdated. This precludes consumers from updating their entertainment system without also buying a new remote.

2.3 The Solution: Harmony Advanced Universal Remote Controls

The first Harmony advanced universal remote was brought to market in 2003 – and like its successors, it aimed to solve the problems with previous remotes with its easy setup and use, while providing simple and complete control of the most complex and unusual entertainment systems.

Introducing Smart State Technology

Logitech's Smart State Technology® powers every Harmony remote control. Smart State Technology includes Logitech patented technology that allows a remote to understand the current states and settings of the entertainment components it controls. For example, a Harmony remote understands whether the television's power is on or off, or which video input it is currently set to. This capability is the backbone for a Harmony remote's ability to deliver complete, simplified control of an entire entertainment system. For a complete description of how Smart State Technology works, see Logitech's Smart State Technology Innovation Brief.

Simple One-Touch, Activity-Based Control

People want to experience entertainment on their terms. They watch TV, they listen to music and they view movies. And when they need to turn up the volume, they don't really want to think about whether the volume is controlled through the TV or the receiver, nor do they want to dig through a pile of remote controls to find the right one.

Harmony remote controls feature buttons that, when pressed, are able to send a sequence of infrared commands to set up the entire entertainment system for an activity. For example, to watch high-definition TV on a cable system with a DVR, the TV, high-definition receiver, satellite, and DVR box may all have to be powered and set to the appropriate inputs – which could require pressing 10 or more buttons on several remote controls. With the Harmony remote, one button – Watch TV – can be programmed to launch all the correct components with the correct input settings in the correct sequence. After starting an activity, the remote knows how to control any of the components used during that activity. If the volume for watching television is controlled through a stereo receiver rather than the television, the Harmony remote will know to send infrared commands to the receiver when the Up or Down volume buttons are pressed.

With activity buttons such as Watch TV, Listen to Music, and Play DVD, Harmony remotes are designed to reflect how people experience entertainment.

Easy Set-up Wizard

New Harmony remote owners initially set up their remote by creating an online login and system profile. Next, a simple set-up wizard asks basic questions about their entertainment system's setup. During the intuitive step-by-step process, consumers enter the model numbers of their entertainment components and answer questions about how various components are used during specific entertainment activities, such as "When watching a DVD, which device do you use to control the volume?" After all of these questions are completed, all of the information the Harmony remote needs will be downloaded into the remote through a USB cable.

Because there are intricacies with everyone's setup, Logitech maintains a toll-free tech support line, available seven days a week, and a quick response email support system.

Powerful Online Database

One reason the setup is so easy is that Logitech has a comprehensive online database that features information about tens of thousands of components and the infrared signals required to control them. When users enter a component model number during setup, the Harmony wizard matches it with infrared codes about that device already stored in the database. Those codes are later downloaded into the remote.

The database is unique in that Harmony remote users actually provide most of the information that exists in the database. During a Harmony remote user's setup, the database occasionally does not include information about a particular electronics component. The wizard walks the user through a process that teaches the Harmony remote about the component. This involves pointing the component's original remote control toward the sensor in the back of the Harmony remote, and pushing a short sequence of buttons. The Harmony remote captures those commands, and then uploads them to the user's online account where they are stored and can be accessed or updated at any time. This new component information is validated by the Harmony customer support team to make sure it is accurate, and is then uploaded into the community database. The next time a Harmony customer enters that component model number, the device will be found in the database.

This community approach ensures that the database has the most current information on tens of thousands of brands and models of consumer electronics components, new and old, popular and obscure. It is never out of date.

3. The Harmony 880 Advanced Universal Remote

The Harmony 880 remote is designed for anyone who is tired of juggling a plethora of remote controls in the living room, and for those who frustrated by universal remotes that require a lengthy sequence of steps and buttons to launch any activity. It's also designed so that people can easily configure and update their remote without a technician to program it for them. Because the activity-based buttons are easy for everyone to understand, not just for the master of the entertainment center; the Harmony remote is simple to use for all family members – even the babysitter.

Customizable Color LCD Screen

The most visible difference between the Harmony 880 remote and previous Harmony remotes is the customizable color LCD screen. The screen provides information that can be instrumental to the user as he/she controls the entertainment center (see chart at right). The screen can also be personalized in several ways:

- Up to eight custom activities or controls can be defined for each screen
- Background image can be uploaded from PC
- Images for favorite channels can be uploaded from PC
- Themes can be chosen that vary appearance of icons/font
- Users can run slideshows of images uploaded from PC
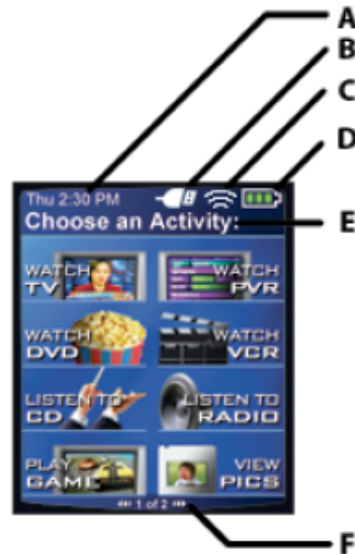
The Harmony 880 remote's LCD displays the following status information:
A. Date and time
B. Indicator if the USB is attached
C. Indicator when infrared (IR) commands are being sent to devices
D. Battery indicator (battery's power)
E. Current screen/Activity label
F. The number of screens available in a menu, and the screen currently displayed

Recharging Station
The Harmony 880 includes a sleek docking station that keeps the remote fully charged. The horizontal docking station allows the remote to be used while it is charging. A docking station also helps family members know where to put, and find, the remote. The lithium-ion battery provides up to a one-week charge under normal use. Also, the Harmony 880 remote has motion sensors built in – when stationary, the color LCD monitor brightness is reduced to conserve power. When the remote is picked up, the screen brightens automatically.

Simplified HDTV/Aspect Ratio Control (NEED INPUT ON HOW WE OPTIMIZE)
Optimized for complicated HDTV systems, the Harmony 880 remote makes switching the television between video aspect ratios simple. While setting up a one-button activity that involves a HDTV, a command that automatically changes the aspect ratio can be part of the sequence of commands the Harmony remote sends out for that activity. Also, custom buttons can be created for the LCD that allow people to toggle from the 4:3 ratio for standard television to 16:9 ratio for movies and HDTV.

Enhanced DVR Control
The Harmony 880 remote's central key layout is optimized for use with DVR systems, such as TiVo. A circular directional control makes it easy to manually navigate through PVR menu screens. Also, the keypad features a cluster of controls that represent Skip Ahead, Replay, Rewind, Fast Forward, Play, Pause, Stop, and Record – all of which are important functions in effectively commanding a PVR device.

Stylish, Comfortable Design
Designed with brushed chrome and charcoal accents, a color LCD display and a low-profile recharging station, the Harmony® 880 Remote matches even the most sophisticated entertainment room's décor. Featuring a comfort grip shape and a centered directional pad, it fits easily in the hand and naturally guides people to the most frequently used controls. The remote is fully backlit so it's easy to navigate in the dark. When their eyes are glued to the television, people can find useful buttons effortlessly, by touch. The primary navigation controls – such as the directional pad, Play, Pause, Record, and the number buttons – are easily identified by feel due to their varied size, shape, and location.

3.1 The Harmony 880 Remote: Features and Benefits

Features	*Benefits*
Color Display	Room for eight customized buttons per screen; images can be uploaded for background, slideshow or favorite channels; style of icons and text can be changed based on personal preference.
Recharging station	No more changing batteries; recharging station provides a stylish dock for remote when not in use.
HDTV control	Harmony 880 remote makes changing aspect ratio simple, as it can be part of a one-button activity control
DVR control	Harmony 880 remote provides comprehensive functionality of PVR remotes such as the TiVo remote.
Smart State Technology®	This core technology enables the remote to remember the state of various components; this enables the remote to easily switch between activities. See Innovation Brief for more detail.
Robust Internet database of devices	Access to user database that includes tens of thousands of devices, and an intuitive Web interface makes it simple to program.
Set-up wizard for easy setup	Wizard makes setup simple, even for the most complicated home entertainment system.
One-touch Activity buttons	Eliminates need to use a sequence of buttons on multiple remotes; with one touch, remote can send all commands needed to Watch HDTV, Listen to CD, Watch DVD, Listen to Radio, etc.
Help button	If remote falls out of sequence, the help button will diagnose state of components based on activity requirements.
Learning ability	Harmony 880 remote can learn any IR remote command. This is done by pointing the original remote at the sensor in the back of the Harmony 880 remote while it is connected to the PC.
Seven-days-a-week tech support	Email and toll-free phone support: Monday through Friday, 9 a.m. – 10 p.m. EST; Saturdays and Sundays, 12 p.m. – 6 p.m. EST. 1-866-826-5722; customerservice@harmonyremote.com

3.2 Logitech Harmony 880 Remote Layout

1) USB Connector: Downloads remote configuration from the Harmony Web site.

2) OFF: Turns all devices off with one button press.

3) HELP: Asks simple questions so that the Harmony remote can troubleshoot when a component is not in the correct state.

4) ACTIVITIES: Press Activities to view a list of activities you have added. Press the screen (LCD) button next to the activity you want and the Harmony remote will set up your entertainment system.

5) Color Display: Shows help, infrared (IR) commands and any available listings.

6) On-screen Buttons: Use the buttons at the side of the screen to select the corresponding command. Use the right arrow button to display more commands.

7) DEVICE: Lists all devices in the entertainment system on the screen (LCD), and allows you to select and fully control any device.

8) Menu Buttons: While there is a default setting for the buttons in most

activities, you can customize these buttons to send different commands.

9) GUIDE: Provides television program listings on TV screen if you have a device with that feature.

10) MEDIA: In the Watch TV activity, press this button to view favorite channels on the screen.

11) LEFT/RIGHT Arrows: Navigates between Harmony LCD screens when there are more than eight choices is a given menu.

12) GLOW: Produces backlight glow.

13) Infrared Learning Port: Includes infrared receiver so remote can learn commands from other remotes.

3.3 Reader Info Box

Many product reviews provide a product overview with pricing, options and vendor contact information. If your review contains a reader information chart, you may find the following table useful.

Reader Information
Harmony® 880 Advanced Universal Remote Control

The Logitech® Harmony 880 advanced universal remote control takes the guesswork out of controlling today's complicated home entertainment systems, especially those with HDTVs and DVRs. With simple one-touch activity controls, the Harmony 880 remote reflects how people actually experience entertainment. It's easy for the entire family – and even the babysitter – to use. With an intuitive Web interface and USB connection, it's also easy to set up and update. The Harmony 880 remote can control any device that has an infrared receiver. Its color LCD screen can be customized to personal preferences, and it's rechargeable – no more changing batteries. No more juggling multiple remote controls – the Harmony 880 remote can do it all.

Price	**$249.95**
In the box	**The Harmony 880 Advanced Universal Remote Control; recharger station; mini-USB cable; software CD; Installation guide; AC power adapter for charging station**
Compatibility	**Windows XP, Me, 2000, 98SE; Mac OS 10.2 and above**
Warranty	**One-year limited hardware warranty**
Vendor	**Logitech Inc.** **Fremont, Calif.**
Web site	**www.logitech.com**

Source: Logitech

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4. Competitive Landscape

As remote controls have evolved, four basic categories have emerged. Here is a look at the categories, distinctions, key players, and pros and cons of each type:

Category	Popular Brands	Pros	Cons
Dedicated component-specific remotes	All electronic remotes	• Buttons reflect the specific functions of the device it comes with • Inexpensive (comes with components)	• Many components equals many remotes; living room clutter • Not programmable
Standard universal remote controls	• Kameleon	• Can fulfill most functions of several component remotes	• Difficult to find the right codes • Many lack widespread compatibility • Inability to truly control all important functions – users end up reaching for individual remotes • Rely on component database on embedded chip, which becomes obsolete; no way to update with new components • User needs to press an elaborate sequence of buttons to launch any Activity
Macro-based, programmable remotes with touch screens	• Phillips • Sony • Universal Electronics • Home Theater Master MX	• Powerful, complete control of entertainment systems • Include one-touch Activity buttons on touch screens that send sequence of commands	• Expensive • Programmed by a professional; a change or addition in the entertainment system would require a house call • Rely on limited component database on embedded chip; no easy way to update with new components
Advanced universal remotes	• Harmony	• Powerful, complete control of entertainment systems • Include one-touch Activity buttons that send sequence of commands • USB programmable by user; easy to add another component and update; simple to program buttons • Internet community helps online database of components remain the most thorough and current in the industry	• Why didn't I think of this?

5. Harmony 880 Product Specifications and System Requirements

5.1 Price

The Logitech Harmony 880 has a suggested retail price of $249.95 in the United States and Canada.

5.2 Product Specifications

- 2 MB flash memory
- USB communication
- Hardware: Color 64K LCD screen LCD 84 x 48 pixels, 53 buttons, Infrared sensor; USB communication.
- Power: Rechargeable Lithium-ion batteries; included charging platform
- Dimensions: 8.1 x 2.3 x 1.3 inches
- Weight: 5.8 oz

5.3 Warranty

Logitech offers the following warranty for new product purchased directly from Logitech, or from a Logitech Harmony Authorized Dealer (with proof of purchase): A one-year repair/exchange warranty for factory assembly defects only, not normal wear and tear over time (including UV light), acts of nature (rain, animals as examples), buyer's remorse, commercial or institutional use, or any user mishap or misuse.

5.4 System Requirements

The minimum recommended Windows® system configuration is:

- Microsoft Windows 98SE/Me/2000/XP operating system
- USB plug-and-play support
- 10 MB free hard drive space
- CD Rom drive
- Internet connection (dial-up, cable, DSL, LAN, etc.)

The minimum recommended Macintosh system configuration is:

- Mac with USB plug-and-play support
- Mac OS X 10.2 or later operating system
- 10 MB free hard drive space
- CD Rom drive
- Internet connection (dial-up, cable, DSL, LAN, etc.)

6. Easy Internet Setup with Web Wizard

The Harmony remote control setup is a five-step process, estimated to take approximately 20-30 minutes the first time. First, install the software and drivers from the CD, and follow the on-screen instructions. The software will connect you with the Harmony Web site, at which point it will ask you to set up an account. The progress of your setup process will be shown on screen intermittently throughout the setup process in the form of a grey and green status bar (see below).

Step 1: Creating a Harmony Account

At the end of software installation, you will be taken automatically to the Harmony Web site (if not, please visit www.logitech.com/harmony and click on New User Login). You will be asked to create a User ID and a password, which you will be able to use to log in each time you want to update your Harmony remote control.

Step 2: Testing the Connection

At this point, the Web interface will ask you to plug in the Harmony 880 remote with the provided mini-USB cable into the computer's USB port. This is simply to make certain the hardware is functioning properly, and is able to upload and download information.

Step 3: Setting Up the Devices

During this step, the wizard helps identify the various entertainment components you wish to control with the Harmony 880 remote. First, you be asked to select the kinds of components you are using and brand names in pull-down menus. After making your selections, press Next. The following screen asks for the specific model numbers of the components you selected. The model numbers provided are then compared with the component information stored in the Harmony database. At this point, the Harmony database will move all of the matching information into your online account, and make it ready for download (Step 5). If there is no record of your particular component models in the database, the wizard will launch the Device Tutor.


The Device Tutor will ask you to point the original component remote toward the back of the Harmony 880 remote, where there is a infrared receiver in the Learning Port. You will be instructed to press a few buttons. This process allows the Harmony remote control to learn the exact kinds of codes needed to control the component. These codes are then uploaded into your account, where it is stored before being downloaded at the end of the process.

Step 4: Setting Up Activities
During this step, the Web wizard will ask questions about how your entertainment devices are connected and how they are used during each activity, such as Watch a DVD, Listen to Music, or Watch TV. As the Web wizard helps to set

To Watch a DVD ("Watch a DVD" Activity), what does your Samsung TV need to be on?

○ Channel 3
○ Channel 4
○ Channel
◉ **Video 1 (Recommended)**
○ Video 2
○ S-Video

up each activity, the wizard may ask questions such as, "To watch a DVD, what does you're your television need to be on?" Based on what the Harmony database already knows about your television, it will provide a recommended choice of inputs (see above) and a few other possible answers. If none of the choices appears correct, click on the Adjust the Inputs button within the Tip Center on the right side of your browser window. After all of the activities are set up, you are ready for the final step of the process: updating the remote.
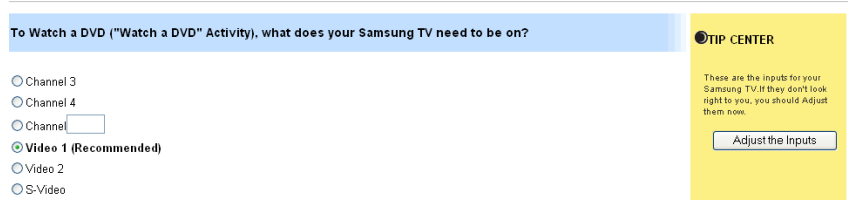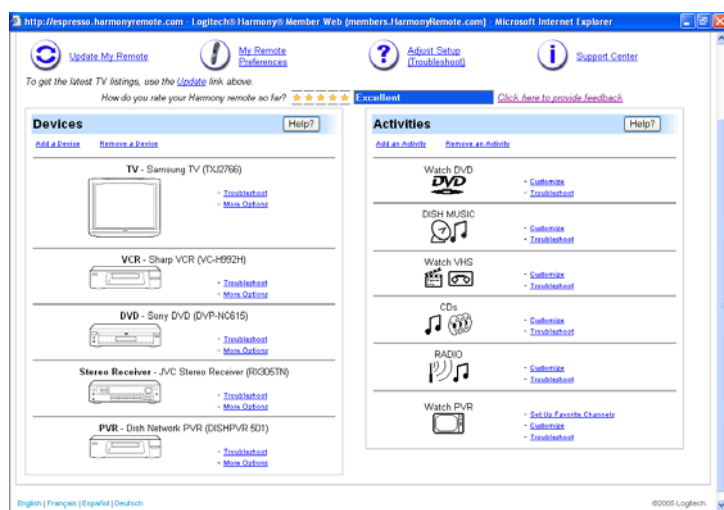
Step 5: Updating the Remote
Once you have finished the first four steps, your account is filled with all of the information the remote needs to completely control your entertainment system. This data is then processed and downloaded into the Harmony remote's flash memory via the USB cable.

Keep in mind that because everyone's entertainment devices are different, the wizards may not get things exactly right the first time. Also, after basic setup is complete, you may decide to customize many of the buttons and LCD display options.

At any time, you can go back to the Member Home Page (shown at right) and adjust the settings, or run portions of the setup wizard again.

What's Next : Update Remote

1. Login Information Complete	2. Check Connection Complete	3. Set Up Devices Complete	4. Set Up Activities Complete	**5. Update Remote**

In this step you will update your Harmony remote with your latest configuration.

This Harmony member home page shows the different activities that have been set up on the right, and the devices the make up the system on the left.

7. Using the Logitech Harmony 880

After the Harmony 880 remote has been programmed for the first time, turn the power off on all of the devices in your entertainment system. Now, you are ready to play. Here are some suggested activities that will help illustrate the power and control of the Harmony remote:

7.1 The One-Button Activity

For starters, try pressing one of the Activity buttons on the side of the color LCD screen. Pressing Watch a DVD will send a sequence of custom infrared commands that will launch all of the devices and settings needed to watch television, which could include:

- Turning on the television
- Turning on the receiver (if using for audio)
- Selecting the correct receiver input setting for listening to the DVD
- Turning on the DVD player
- Setting the television to the correct input so it sees the DVD
- Changing the video aspect ratio on the television to the appropriate format for watching DVDs
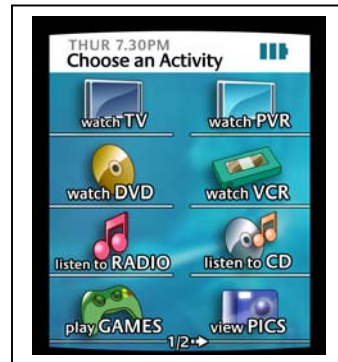
If the activity doesn't launch correctly, use the Help button above the LCD screen, and it will ask a series of questions to help troubleshoot.

7.2 Using the Help Button

The Harmony 880 remote's Smart State Technology tracks the state of each component, from the time you launch your first activity until the time you turn the whole system off. However, if the state of a component is changed using a different remote, or manually, or if an infrared signal is blocked, your Harmony remote may get out of sequence. The Harmony 880 remote makes it easy to troubleshoot and remedy the problem. To simulate such a situation, launch the Watch TV button. After the system is running, turn off the TV manually or with its original remote control. The Harmony believes the television is on. If you hit the Help button, it will ask a series of questions to determine what isn't setup correctly, including "Is the Television On?" When you click No, it will send a signal to turn on the television. The remote will then ask you again if the TV is on, and follow with a question to verify if the problem was solved.

7.3 Switching Between Activities

There's no need to power off all of the devices in use to switch activities. For example, if you're watching TV or listening to a CD, simply press any one of the Activity buttons to jump directly to that selected activity. The Harmony 880 remote will automatically power on or off the necessary components and change input settings accordingly. It takes just one button to launch – or change an activity.

With many other Macro-based remotes, the entertainment system will need to be reset with every component turned off, before it can launch a new activity.

7.4 Controlling Individual Devices

The Harmony 880 remote can work in two different modes: through programmed activities, as discussed above, or through individual devices. Here's one example of where you may want to use the Device control. You decide to listen to music through your satellite TV or digital cable service, which runs through your television box. Once you arrive at the channel you want, you don't need the TV to be on. Press the Device button, and the LCD screen gives you the option to select any device in your system (if the device you are looking for is not on the initial screen, press More). Once you select TV, the remote will be set up to control the television. A custom command on the LCD screen could allow you to turn the television off (see Section 8.2).

8. Optimizing Performance

Another strength of the Harmony remote is its scalable level of programming. Users may choose to run the basic setup and have all of their primary needs fulfilled. The power user can run advanced setup options and make subtle tweaks that can further optimize the control and power the Harmony will have over their system.

For example, some of the more advanced capabilities include:

8.1 Customizing the LCD Screen

The Harmony 880 remote's color LCD screen can be customized in several different ways to suit personal preferences.

**Choosing a Background:** To change the background image on the remote, log into your Harmony account and go to the home page. Click on My Remote Preferences, then choose Set a Background. From there, you can browse your computer for the image you would like to set as your background (files must use .png, .bmp, .jpg, or .gif formats; up to 160 KB file size).

Choosing a Theme for Font/Icon Appearance: The appearance of the Harmony 880 remote's LCD menus can be changed by choosing a different theme. From the home page, click on My Remote Preferences, then choose Select a Theme. From there, you can choose from different font styles and whether or not to include the icons in the display.

Creating a Slideshow: You can create a custom slideshow that will run on the LCD show while the remote is charging, and can also be launched by pressing the System Options Activity, then Start the Slide Show. To load images, click on My Remote Preferences, then choose Set Up a Slide Show. The next window will allow you to browse and upload images from your PC.
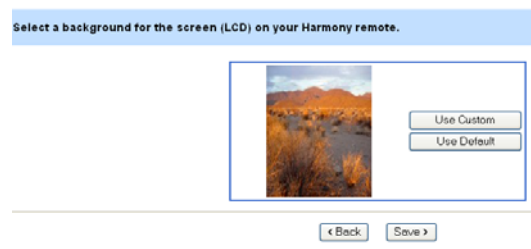
Choosing Images for Favorite Channels: The Harmony 880 also allows you to create a list of favorite channels, and then choose icons to represent those favorites. From the Harmony home page, choose **Set Up Favorite Channels** within the Watch TV, Watch PVR or Watch HDTV activities. The next window will allow you to designate your favorite channel numbers, then add icons for those channels. If you choose not to add an image for a channel, the number will appear on your Favorite Channels screen. To access your favorites while watching television, click the Media button just below the LCD screen on the Harmony remote.
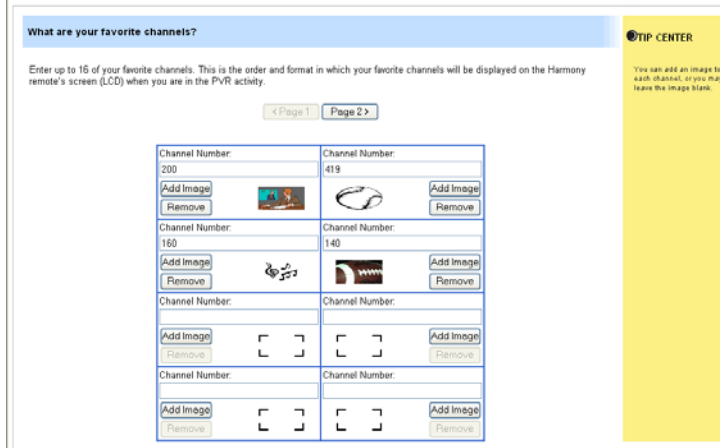
8.2 Creating a Custom Button

It's easy to add custom buttons on the Harmony 880 remote LCD screen or change any button's function on the remote. These custom buttons can be created for a specific activity, or for a specific device.

To try this, log in to your Harmony account and go to the home page. Click **Customize** on the Watch DVD Activity. Click on **Change the behavior of buttons**. On the left, you'll see the names of the buttons. Next to it, you'll see the functions of the buttons that are assigned to the DVD player. And farther to the right, you may see another component that is used during the Watch DVD Activity, such as a stereo receiver. You can change any of the drop-down windows to alter the task of the buttons. And if you scroll down to the bottom of the page, you will see custom button labels that correspond to the LCD button assignments. Change one to the name and function of your choice.

8.3 Teaching the Harmony 880 an Infrared Command

Occasionally, a button on a component remote may not appear as a default on the Harmony remote. If that occurs, it is simple to teach the Harmony remote new commands. For example, if you want to add a button to enhance your control of the television, click **More Options** under Television from your Harmony home page.

From there, click Customize the Device, Sound, and Picture commands for this TV. At the top of the next window, you will see a Learn Missing Commands button. Click it, and you will see a grid of commands already represented in the database. If you scroll to the bottom of the page, you will see a Learn a New Command window. There you can name the function you are going to add. Click Learn New Command, then point your TV remote at the base of the Harmony 880 remote, as shown on the diagram on the Web page, and push the button you would like your Harmony to learn. After completing the process, you can assign the command to any button on the remote control, including those next to the color LCD.

8.4 Adjusting the Speed Settings

Devices respond to signals at different speeds. The Harmony remote allows users to tweak the speed settings of the various sequences it can send out. For example, for someone who wants to fine tune the speed in which signals are sent to the television – very few users do – they could do so by adjusting four different specs:

- **Power On Delay: How long the device takes to warm up and respond to any more signals after Power.**
- **Inter-key Delay: How long the device needs to accept one signal and be ready for the next.**
- **Input Delay: How long the device takes to respond to input signals. Sometimes TVs take a second or two for certain input switches, and to be ready for the next.**
- **Inter-Device Delay: Some devices get confused when infrared signals sent to it are followed closely by signals sent to other devices. Increasing this setting provides a buffer between those signals.**

8.5 Custom Activities

We all like to do things a bit differently. The Harmony remote's programmability gives people the opportunity to take control of anything that has an infrared receiver. Here are some examples of custom activities that most people wouldn't think about, but are possible using the Harmony remote.

Have it Both Ways: TV and Music
The playoffs are on, but you have company over and your spouse wants to turn on some music. No problem. You can set up a custom activity – call it Background TV – where you can have the television on (without audio) and music playing.

From the home page, select Add an Activity, then Add one Activity. Then choose the primary activity

listed that is closest to what you want – in this case, we'll choose Watch TV.

At the next window, select Custom, which will ask you a series of questions about which devices you want to use for this activity. When you are done setting the state of the devices, return to your home page where you can rename the activity by clicking Customize, and then Rename. You can also set up the buttons on the controller to give commands to the various devices. For example, you will want basic controls to skip, play, and pause the DVD player; and some channel controls for the TV. You can define which buttons control various functions, and you can also add custom buttons on the LCD screen. Once the new configuration is downloaded into the remote, you can access the new activity by pressing the More button on the top of the controller. Then it's just one click of the custom Background TV button to turn all the components to the right setting for music and TV.

Perfect Movie Mode
Controlling your entertainment system is one thing, but the Harmony remote can take it even a step further. With the Logitech Harmony remote, you can control a lighting system if it's connected to an infrared receiver. It's possible to set up a Perfect Movie Activity button, where lighting would be launched to the right level, and the entertainment system set to just the right volume and video settings. With just one click of a Perfect Movie Activity, the perfect home movie environment can be achieved.

9. Frequently Asked Questions

What types of devices can be controlled by the Harmony Remote?
The Harmony remote can control most types of devices that come with an infrared remote control.

Harmony remote controls use infrared technology. Will they ever use other technologies such as Bluetooth, WiFi, or Fast RF?
Infrared is the common communications technology for most consumer electronics today. Other wireless technologies do offer some additional advantages for remote controls, which Logitech will continue to consider. Logitech researches and monitors all of the existing and emerging wireless communications technologies, and will continue to apply the most appropriate technology for each of our products.

As other wireless and digital technologies come into play, won't an infrared device be obsolete?
While much focus is placed on connected devices (devices that are on a home network), the reality is that these devices will join a host of existing legacy devices, such as TVs, DVDs, and CD/DVD players – and these devices all require infrared remotes. So, an advanced remote control needs to be able to work with the current systems and components that respond to infrared, as well as with the components in the digital home of the future. The Harmony Remote can control both.

How do I know that the information I receive from the database is accurate?
There is a two-prong verification process that takes place for information entered by Harmony customers. First, Harmony engineers will validate the commands before allowing them to enter the public profile of a device. Second, Harmony customers repeatedly enter the same information about new devices, which serves as validation.

Can I set up my Harmony remote with operating systems besides Windows?
All Harmony remotes support both Windows (98 SE & Later) and Macintosh (OS X & later) operating systems.

What is different about how the Harmony 880 controls aspect ratios in HDTV than other Harmony remote controls?
Depending on the type of setup, the Harmony 880 will immediately prompt for a change in aspect ratio when switching between activities or to a different channel.

10. About Logitech Inc.

Logitech designs, manufactures and markets personal peripherals that enable people to effectively work, play, and communicate in the digital world. The company's products combine essential core technologies, continuing innovation, award-winning industrial design and excellent price performance.

Logitech International is a Swiss public company traded on the SWX Swiss Exchange under the symbol LOGN and on the Nasdaq National Market System under the symbol LOGI. The company has manufacturing facilities in Asia and offices in major cities in North America, Europe and Asia Pacific.

Logitech's origins lie in the OEM sector, which remains an important part of its business, and represented 13 percent of the company's total sales in Fiscal 2005. To meet the demands of its OEM customer base, which includes most of the world's largest PC manufacturers, Logitech offers high-volume manufacturing with focused quality control, worldwide distribution and logistics, and the ability to leverage its infrastructure under changing demand conditions.

Logitech continues to broaden its product offering and its presence in the retail sector. This is fueled by a trend among consumers to enhance their basic PC systems with more fully featured personal peripherals that add functionality and cordless freedom to their desktops. They are also purchasing supplementary devices designed for new applications and specific purposes such as gaming, multimedia, or audio and visual communication over the Internet. Further, Logitech's retail business includes personal peripherals for platforms beyond the PC, such as gaming consoles, portable music players, mobile phones and home-entertainment systems.

Today, Logitech's retail business accounts for 87 percent of its revenue. To provide the market with a broadening array of best-of-category products, Logitech's business model calls for supplementing its internal engineering and manufacturing strength with additional products and technologies through a combination of strategic acquisitions and industry partnerships.

Additionally, the company believes that a number of strategic directions will result in continuing growth:

- Broadening the desktop presence: Logitech has already expanded beyond its traditional role as a provider of pointing devices for the desktop into a leading brand for webcams, keyboards, PC audio products, game controllers, digital pens and advanced universal remote controls.

- Moving beyond the desktop to the living room: Today, people are increasingly turning to digital entertainment, in the form of enhanced audio and multimedia products and to the growing world of entertainment consoles. Logitech currently makes several products for the popular PlayStation® 2 gaming console, as well as devices for the Microsoft® Xbox. Logitech also offers a family of advanced univeral remote controls for the living room.

- **Offering personal peripherals for people on the go:** Logitech addresses the mobile market with an array of products for several platforms. For notebook users, Logitech offers cordless and corded mice and portable webcams. For mobile phone users, Logitech offers comfortable cordless and corded headsets. For people enjoying entertainment on the go, Logitech now offers a line of personal peripherals for the PSP®, and will soon offer a variety of products for the iPod® and other MP3 players. The company also offers a digital writing system that marries the familiar and comfortable world of pen and paper with the power of the digital world of the personal computer.

10.1 Logitech Warranty Policies

Satisfaction Guaranteed
Anyone who is not completely satisfied with the Logitech Harmony 880 remote can return the product to the reseller within 60 days, with the complete contents of the package and proof of purchase, for a full refund. All Harmony remotes are covered by a one-year limited warranty.

10.2 How Your Readers Can Contact Us

Web Site: www.logitech.com/harmony
The Logitech Harmony Web site contains interactive customer support, patches, product information and more.
People can also call us toll free at 1.866.291.1505, or e-mail us at customerservice@harmonyremote.com for electronic support.